

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 17 JAN 2006

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Applicant's or agent's file reference CLEAN-F	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/KR2004/003389	International filing date(day/month/year) 22 DECEMBER 2004 (22.12.2004)	Priority date (day/month/year) 26 DECEMBER 2003 (26.12.2003)
International Patent Classification (IPC) or national classification and IPC D03D 15/00(2006.01)i		
Applicant KOLON INDUSTRIES, INC et al		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 15 JUNE 2005 (15.06.2005)	Date of completion of this report 04 JANUARY 2006 (04.01.2006)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer CHO, Ho Jung Telephone No. 82-42-481-5593 

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003389

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☒ This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☒ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003389

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-10	YES
	Claims	None	NO
Inventive step (IS)	Claims	1-10	YES
	Claims	None	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims	None	NO

2. Citations and explanations (Rule 70.7)

The following documents have been considered for the purpose of this report:

D1: US 6632504 B1 (14 OCTOBER 2003)

D2: US 5935883 A (10 AUGUST 1999)

D3: JP 9119067 A (6 MAY 1997)

D1 discloses a nonwoven web which can be readily converted to an apertured web by stretching. In its initial non-apertured state, the web comprises a plurality of multicomponent fibers comprising at least two thermoplastic polymer components arranged in at least first and second separate continuous structured domains. The frangible bond sites are structured and arranged to readily rupture when subjected to tensile stress to form discrete, spaced-apart apertures in the nonwoven fabric.

D2 discloses a superfine microfiber web comprising split fibers of meltbrown fibers, said split fiber web comprising first split microfibers of a first polymeric composition and second split microfibers of a second polymeric composition, wherein at least one of the polymeric compositions is hydrophilic.

D3 discloses a wiping cloth comprising a knitted or a woven fabric composed of polyester ultrafine fiber filaments having less than 0.1 denier single filament sized without substantially containing a hydrophilic or a hydrophobic substance.

The claimed invention relates to a cleansing polyester fabric, which comprises a polyester multifilament consisting of ultra yarns(monofilament fibrils) of 0.001 to 0.1 deniers or its false twist yarn as a warp, and a false twisted mixing yarn consisting of said polyester mulifilament and a high shrinkable polyester multifilament with 10-50% of shrinkage rate in boiling water as a weft.

(Continued on Supplemental Sheet.)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003389

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Box No. V

The technical feature of the present invention is that a cleansing polyester fabric comprises (i) a polyester multifilament of ultra yarns or its false twist yarn as a warp and (ii) a false twisted mixing yarn of a polyester multifilament and a high shrinkable polyester multifilament as a weft. Said cleansing fabric is useful as a makeup cleansing fabric or as a wiping fabric for fine products and optical devices.

However, none of the prior art documents discloses a cleansing polyester fabric comprising a polyester multifilament false twist yarn as a warp and a false twisted mixing yarn as a weft. Said cleansing fabric in this invention would not have been obvious to a person skilled in the art.

Therefore, claims 1-10 meet the requirements of novelty, inventive step and industrial applicability under PCT Article 33(2)-(4).